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MINING LEGISLATION IN UNDERDEVELOPED COUNTRIES

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MINING LEGISLATION IN UNDERDEVELOPED COUNTRIES

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1. In this paper a general description is given of the most usual provisions of the mining legislation in force in some of the countries of the British Commonwealth. It is hoped that the experience gained whilst these countries were being developed and their laws were being evolved might prove of value to other countries considering legislation connected with the development of the mineral resources of areas where conditions may be similar.

Public Ownership of Minerals

2. Underdeveloped countries are usually unable to provide the funds needed for developing their mineral resources and they must therefore seek to attract outside capital. One of the factors that can discourage a mining concern wishing to invest money in prospecting, however, is the fear that when a workable deposit has been found it may be necessary to negotiate with a number of smallholders, any one of whom, in consequence of his unwillingness to agree reasonable terms, or even because he cannot be found, may jeopardise the project after considerable sums of money have been spent. Many countries of the Commonwealth have overcome this by passing laws vesting the minerals in the Crown (the equivalent of the State) which then grants the rights to prospect and mine. Any proceeds from fees, rents or royalties are then paid into general revenue for the benefit of the country as a whole.

3. In Jamaica, for example, under the law which vested the minerals in the Crown in 1947, the owners of the land are compensated by the payment of 5 per cent. of the royalties. However, no payment may be made after the fiftieth anniversary of the commencement of the law and the twenty-fifth anniversary of the day upon which the minerals were first won. In some of the provinces of Canada, where before the introduction of mining legislation the minerals passed to the owners with the surface rights, the vesting law provides for the State only to retain the mineral rights in land alienated after it came into force.

Administration

4. In the countries of the Commonwealth, the granting of the more important titles such as exclusive prospecting licences and mining leases was originally vested in the Governor on behalf of the Crown or the State. In those countries which are approaching or have gained independence this power is now exercised by the Minister for Mines.

5. In other territories, notably in Fiji and the British Solomon Islands, this power is vested in a Mining Board, the members of which are appointed by the Governor. In Southern Rhodesia, a Mining Affairs Board acts mainly in an advisory capacity to the Governor in regard to applications for prospecting and

mining titles, for which purpose it may summon applicants and owners of land to give evidence on oath and to produce books, plans and accounts. Among other matters, these Boards consider and approve programmes submitted by the holders of prospecting titles.

6. In addition, there is provision in the law for the appointment of the officers of the Mines Department, the head of which may be a Secretary for Mines, a Commissioner of Mines or a Chief Inspector of Mines. In countries where there is a great deal of mining activity and a large Mines Department all three may be appointed in the above order of responsibility. There is also provision for the appointment of officers to administer mining activities in the field such as Mining Commissioners, Inspectors of Mines and Wardens. In Southern Rhodesia, a Mining Commissioner is placed in charge of Mines Department matters in each district. Inspectors of Mines are generally qualified mining engineers whose duty it is to inspect mines for safety and deal with matters of a technical nature, whereas Wardens are generally employed on duties which do not call for considerable technical knowledge.

The Meaning of the Word "Mine"

7. There are many definitions of a mine in the laws of the countries of the Commonwealth, but in general the word covers all workings where minerals are removed from the ground. For the purpose of this definition minerals usually include all mineral substances except such materials as clay, stone, gravel or sand used in their natural state and mineral oils and gas, which are usually dealt with under different laws. The type of excavation or the method of obtaining the minerals, whether from surface or underground workings, seldom affects the interpretation of the word.

Prospecting

8. The names given to the documents which convey the right to explore and prospect for minerals differ from country to country in the Commonwealth and the rights which they convey vary, but they may be divided into two general classes:

(a) Those which convey a non-exclusive right to prospect - usually known as "prospecting rights" but may be called "prospecting licences" or "prospecting permits".

(b) Those which convey an exclusive right to explore and prospect for minerals over an area specified in the document - known as "exclusive prospecting licences","exclusive rights to explore", "exclusive prospecting orders" or, in some countries, "prospecting licences".

Prospecting may also be done under titles which convey the right to exploit and mine minerals.

9. Prospecting rights do not convey any exclusive right to search and the holders have no protection from the attentions of other prospecting right holders until they have appropriated prior rights to the minerals by planting protection notices, pegging claims or applying for some other form of mining title. Before a person can obtain a right, he must show that he has control of sufficient funds to cover any compensation he may become liable to pay to those who suffer damage as a result of his activities. In addition he may be required to make a deposit, provide a banker's guarantee or enter into a bond

with acceptable sureties to cover this liability. Normally, the power is reserved for the issuing official to refuse a right to anyone to whom there is objection because of previous breaches of the mining law, with, of course, the right for an aggrieved applicant to appeal to a higher authority.

10. A prospecting right permits the holder to make excavations, build camps on unoccupied land, take water from lakes and rivers and cut such timber as he needs, provided it is not privately owned or protected by the State. These privileges are, however, subject to control and the prospector cannot divert any water from its normal course without permission or prospect on any private or reserved land without legally notifying the occupier or the responsible authority.

11. Exclusive prospecting licence. In nearly all the countries of the Commonwealth the rule of priority prevails. This means that the first person who demarcates an area in accordance with the mining law or applies to the proper authority in the correct form, has the prior right to the area. This has the disadvantage that it may discourage the investment of capital in systematic prospecting, since, before embarking on the considerable expenditure that this entails, a prospector or company would require protection from "claim jumpers" and speculators. In order to accommodate suitable persons who would be willing to invest capital in an exploration and prospecting campaign that could be disorganised by these attentions, provision is therefore usually made for the issue of exclusive rights to explore and prospect over an area for a particular mineral or group of minerals, and this is usually called an "exclusive prospecting licence". There are in general two varieties of this licence: one which covers a comparatively small area, usually not exceeding 16 sq. miles (41 sq. kilometres) and which contains conditions which are laid down in the law; and another, the "special exclusive prospecting licence", which is generally issued for a larger area for a particular period and under special conditions which must be negotiated and approved by the Government in each case.

12. An exclusive licence conveys the same rights as a prospecting right, the prescribed rent being usually about £5 per sq. mile (2.59 sq. kilometres) and seldom more than £10 per sq. mile. It is generally issued for a period of one year, renewable for further periods of one year each up to a limit, which is usually 5 to 7 years. Provided he has conformed with the conditions of his licence, the holder has the right to mining title over any part of the area where he has discovered the minerals of value for which he has the right to search, or, in countries where there is provision in the mining law for mining claims, he may peg claims. The conditions of an exclusive prospecting licence include the obligation to carry on bona fide prospecting operations to the satisfaction of the Government. Most laws provide that the holders of exclusive prospecting licences shall keep full and accurate records of their operations and, at prescribed intervals, submit returns and reports of the work done together with the results.

13. Applicants for a special exclusive prospecting licence are usually called upon to submit a programme of work and to guarantee a required minimum expenditure on exploring and prospecting the area, which must be approved by the Government before the licence is granted.

14. Overlapping exclusive prospecting licences. In many Commonwealth countries the law provides that the area covered by an exclusive prospecting licence shall be closed to all prospecting by others, even though they may not be concerned with the mineral for which the exclusive prospecting licence is issued. However, a trial has been made, with some success, of the issue of

special exclusive prospecting licences which provide that the holders of prospecting rights may enter to prospect for other minerals and which reserve to the State the right to issue exclusive prospecting licences to prospect for other minerals over the same area.

15. Such a special licence was found useful, for example, when an application was received for a very large area, the closing of which to others would have curtailed development of the mineral reserves, especially as it was known that prospectors were active when the application was made. Care had to be taken, however, not to issue overlapping licences for those minerals which would probably occur in such a manner as to lead to interference by one prospector with another. Nevertheless, some mining companies dislike taking up areas into which others may gain entry and, under the guise of prospecting for other minerals, obtain information regarding their activities that could be of value to competitors or speculators.

16. Protection notices. To enable the small prospector to gain protection during his search for minerals, the laws of some countries enable the holder of a prospecting right to post a protection notice which gives him the exclusive right to prospect and peg claims for one month over an area of a given radius from the notice. In Kenya, for example, the radius is 500 yards (457 metres) and in Northern Rhodesia 1,000 yards (914 metres). The prospecting right holder who first plants a protection notice has the prior right to prospect the area that it covers.

Mining Title

17. There are two main kinds of mining title:

(a) Claims, locations and mining rights which are of short term and have to be renewed annually.

(b) Mining leases, concessions and grants which subsist for from five to ninety-nine years and may be renewed for one, or sometimes more, similar periods.

Claims and locations, which generally consist of blocks of ten contiguous claims pegged at the same time, may be located by the holder of a prospecting right or exclusive prospecting licence. In some countries it is necessary also to have found valuable minerals in the course of prospecting under the right and to have posted a discovery peg at the point where they were found before a claim may be pegged.

18. Short term mining titles. Claims are rectangular areas which in some countries may be acquired by the holders of prospecting rights by pegging, the first holder who pegs a claim having the prior right to that claim. The sizes and shapes of claims differ considerably in each country, but in general claims for precious stones and precious metals are small while base metal and base mineral claims are large; the size also varies in accordance with the remoteness of the area and the sparseness of its population. For instance, a precious metals alluvial claim in Tanganyika is 300 feet (91 metres) long by 100 feet (30.5 metres) wide and has an area of nearly 0.69 acres (0.28 hectares), whereas a claim for minerals other than diamonds in Bechuanaland, a large part of which is occupied by the Kalahari desert, may be as large as 300 morgan (about 260 hectares). Claims must be registered at the nearest Government Mines Department office within a specified period that varies according to the

remoteness of the area in which the claim is pegged, but is usually one month.

19. In some countries claims are not provided for in the mining law, but mining rights or river locations may be issued for working small alluvial deposits; other types of ore bodies are covered by the issue of mining leases. Normally, mining rights and river locations are only granted when there is reason to believe that the mineral-bearing qualities of the land are not such as to justify an application for a mining lease. A mining right or river location is granted for a stream and the land lying within a specified distance of its centre, varying from 100 feet (30.5 metres) to 200 yards (183 metres). The length of a mining right or river location along the centre of the stream varies from 800 feet (244 metres) in Sierra Leone to 1,800 yards (1,645 metres) in Swaziland.

20. Long term mining titles. Mining leases and concessions are issued for larger areas and for periods of from five to ninety-nine years in those cases where considerable capital is necessary to develop the mine and where the applicant needs security of tenure over a longer period for his operations to be economic. The area of a mining lease differs from country to country, but is generally larger than that of a claim, location or mining right. For example, in Fiji the area of a precious stones lease may not be more than 10 acres (4 hectares) whereas in the Brunei Mining Enactment, although the size of a mining lease is not specified, the maximum area a lessee may hold is as much as 5 sq. miles (13 sq. kilometres).

21. Under a mining lease the holder may make the excavations necessary to extract the mineral from the ground and erect the buildings and machinery needed for this purpose. In most countries the lease also conveys the right to erect machinery and buildings for processing the mineral for sale, to stack or dump mineral or waste, to impound or divert water, lay pipes, make water-courses and to construct roads and tramways on its area. In Southern Rhodesia, however, the siting of these works is under the control of the Mines Department official in charge of the district, to whom a plan showing their situation must be sent. The Mines and Minerals Act of Southern Rhodesia also allows the holder of a mining title to peg sites for residences and the above works outside his area with the permission of this official.

22. Mining leases carry certain obligations, the breach of which may lead to the lease being forfeited if the lessee does not rectify the breach before the expiry of a notice calling upon him to do so. In addition to the requirement to comply with the provisions of the mining law, these obligations include the payment of both surface and mineral rents. Surface rent goes to the owner or occupier of the area covered by the mining works and buildings. It is assessed by the Government, after consulting the owner, at the estimated annual value of the land when used for the purpose for which it was being employed at the time it was first occupied by the mining lessee. This surface rent is often subject to periodic revision.

23. Mineral rent is an annual payment to the Government for the right to remove the minerals from the ground. It varies considerably from country to country and for the different minerals and types of mineral deposits for which the lease has been granted. In Sierra Leone, the rent for leases for minerals in lode formation is 10 shillings per acre and for precious metals in alluvial leases 5 shillings per acre. In a few countries mineral rent is treated as a minimum royalty or "dead rent", the amount of which may be deducted from royalty payments. Lessees are also obliged to pay compensation to the surface

holder for damage or removal of buildings, economic trees, crops or the surface of the land.

24. A mining lessee must commence operations within a given period, generally six months, and must continue working during the tenure of the lease, unless prevented from doing so by unavoidable accident. In British Honduras and Fiji a minimum labour force must be employed during the year and in Kenya and Southern Rhodesia a minimum amount of development work must be done. Proper records of production, sales, staff and labour employed must be kept. In addition, correct plans and sections showing all workings and the known extent of the mineral deposits, their assay and sample values, must be available at the mine and a record must be kept of all abandoned underground workings.

25. The lessee is also obliged to keep the Government informed by the periodic submission of returns and reports, the nature and contents of which are laid down in the mining law.

Demarcation of Prospecting and Mining Areas

26. In the mining laws of the Commonwealth countries there is always provision for the description, demarcation and, when necessary, the survey of prospecting and mining areas, which must be fixed with sufficient accuracy and permanence, but without incurring more expense than can be justified for each class of title.

27. Exclusive prospecting licence. Before applying for this licence an applicant has to make a preliminary demarcation by erecting temporary beacons at the four corners of the area. These often consist of a pile of stones with direction trenches, but in some countries where the vegetation is heavy the applicant has to clear the bush on the boundary lines. After the application has been approved by the Government, permanent concrete corner beacons must usually be erected and the boundary lines surveyed by a qualified surveyor who must fix by theodolite and steel tape the position of these beacons by connecting them to the national survey grid or to some well known point. When there is little possibility of dispute with others as to the position of the boundaries, permission may be given for the survey to be dispensed with; but if an application is made for a contiguous area, the holder may be called upon to share the expense of surveying the common boundary.

28. Special exclusive prospecting licence. The same rules regarding demarcation and survey are applicable to the special licence, but in cases where the area concerned is extensive, it may be described by reference to natural boundaries such as the banks of rivers and streams or by political boundaries, provided their situation is not in dispute and they are well known.

29. Claims. The pegging of a claim is done by erecting pegs and notices at each of the four corners. The pegs are stout wooden posts inserted firmly in the ground with notice boards attached. In wooded country they may consist of notice boards nailed to trees and where the undergrowth is heavy the boundary lines are marked by clearing a path from corner to corner of the claim. Usually one and sometimes all four notice boards must have legibly written on them at least the name of the prospector who pegged the claim, the number of his prospecting right and the date on which he did the pegging. After the claim has been registered or licensed, the registration or licence number is added to the information on the notice boards. Claims are normally not surveyed but in Southern Rhodesia a claim holder may, by special registration, arrange for his location to be marked with permanent corner beacons of solid

masonry and for a survey to be made by a qualified surveyor. The plan or diagram is then registered at the Mines Department office.

30. Mining rights and river locations. Before the holder of a prospecting right can apply for a mining right or river location he must erect temporary beacons at the highest and lowest points on the river or stream of the area required and prepare a plan using approximate magnetic bearings. After approval, the area must be surveyed, usually by chain and compass, and demarcated by means of beacons erected above flood level at the upper and lower boundaries.

31. Mining leases. The preliminary demarcation and the requirements for the erection of permanent beacons and precise survey by a qualified surveyor are the same as for an exclusive prospecting licence, except that permission cannot be given for the survey to be dispensed with.

Control of Possession, Purchase and Sale of Certain Minerals

32. The necessity for the control of possession, purchase and sale of a particular mineral depends on the value of the mineral that can be carried and hidden on the person and the ease with which it can be illicitly mined, sold and smuggled. In Nigeria, for example, the following minerals are controlled: the ores of tin, columbium, tantalum, tungsten and zinc; radioactive minerals; uncut diamond, and any other mineral which the Government may decide to declare. In countries where precious metals such as gold and silver are found, possession of these and their ores is controlled.

33. When possession of a mineral is controlled, it becomes illegal for anyone to possess it unless he is the holder of a prospecting or mining title or right, the holder of a licence to trade in the mineral, or the authorised agent or employee of one of those persons and he has obtained possession of the mineral in a legal manner. Also, no one may sell the mineral unless he is satisfied that the purchaser is the holder of a licence to trade in it, and no such holder may purchase the mineral unless he is satisfied that the vendor is legally in possession of it.

34. The holder of a licence to trade in any mineral is obliged to keep proper records showing his purchases and sales, the dates when these were made, the persons with whom the transactions took place and the stocks of mineral he held after each transaction. Officials of the Mines Department are usually given the power to inspect these books and the licensee's stocks of mineral at any time. The export of the mineral is often controlled by limiting those who may do so to recognised banks or to the holders of licences to export, who must pass all such minerals through the customs control before they are exported from the country. There are severe penalties for illegally possessing, purchasing, selling or exporting controlled minerals.

Principal Royalty Systems

35. A royalty is a form of compensation paid to the owner of the minerals, whether a private individual or the State, for the exhaustion of an asset and is ideally priced at a figure at least equal to the "value of the mineral" as it lies in the ground, i.e., the value of the mineral recovered, less a reasonable charge for extraction, treatment and transport to the point of sale.

36. There are three main systems in use in the British Commonwealth for calculating royalties and taxes to be paid on minerals, each being employed under different circumstances.

(a) A profits tax or a levy based on the "profitability" of the mine. This is appropriate when reliable accounts are kept and the value of the mineral concerned can be established with reasonable accuracy.

(b) A percentage or a sliding scale based on the value of the production or sales from the mine. This method is applicable when the work of preparing and checking the statement called for by the previous system cannot be justified by the amount of revenue that would result. It is most appropriate for assessing royalties to be paid by small prospectors and miners who cannot employ staff capable of preparing elaborate accounts.

(c) A fixed sum per ton or other unit for each mineral or metal raised or sold. Originally most royalties were of this type, but this system is now usually limited to those cases in which the product is sold in small lots at varying prices or is difficult to value accurately because it is employed in an integrated industry, such as brickmaking or pottery manufacture in which both the mine (or quarry) and the factory are run as a single business unit.

Application of Royalty Systems

37. Profits tax. The most usual form of levy based on "profitability" is a profit or income tax. An example of this is the 50/50 tax which is now often included in petroleum producing agreements and leases, whereby the Government, as the royalty owner, takes 50 per cent. of the profits from the production of petroleum. This system has been adopted in Ghana and Nigeria.

38. Another form of mineral tax based on profitability is that which is calculated on a sliding scale dependent on the "yield ratio", which is the ratio that the yield (i.e., the value of the mineral won less the actual operating costs) bears to the recovery (i.e., the value of the mineral won). Although not strictly a royalty, the best example of this is found in Ghana, where the following duty is charged on all minerals, except on diamond won by individuals and on outputs of gold less than 50 ounces (1,555 grams) per annum won by individuals:

Yield ratio	Rate of duty chargeable on the value of the minerals won
15% or less	Nil
More than 15% but less than 30%	0.02% for every 0.1% by which the yield ratio exceeds 15%
More than 30% but less than 70%	3% plus 0.04% for every 0.1% by which the yield ratio exceeds 30%
70% and over	19% plus 0.02% for every 0.1% by which the yield ratio exceeds 70%

39. Percentage of mineral value. The most usual form of royalty or mineral tax is based on a percentage of the value or on a sliding scale according to the value of the mineral concerned. For example, in Nigeria a sliding scale system is adopted for tin ore, royalty being payable on the tonnage of metallic tin contained, which is assumed to be 72.5 per cent. in weight of the ore exported. The royalty is calculated as the sum of the following:

Of that part of the price per ton	Royalty
which does not exceed £250	2%
which exceeds £250 but not £350	4%
" " £350 " " £450	10%
" " £450 " " £550	20%
" " £550 " " £900	30%
" " £900 " " £1,100	33%
" " £1,100 " " £1,300	35%
" " £1,300	40%

The price of tin is taken as the average of the mean of spot and forward prices in London for the calendar month immediately preceding export.

40. Fixed sum. A royalty based on a fixed amount per ton or other unit of material is seldom employed for the ores of metals, but is usually adopted in the case of building stone, clay, sand or similar materials. The following are examples from Tanganyika:

Gypsum	Shs. 2 per ton
Magnesite	Shs. 3 per ton
Clay	50 cents per 100 cubic feet
Stone	Shs. 1 per 100 cubic feet

Miscellaneous Matters

41. In addition to those already mentioned, a number of other matters are dealt with in the Mining Laws of the various Commonwealth countries, among which is the procedure for reporting and inquiring into accidents and the measures that must be taken to prevent their occurrence. All Inspectors of Mines and senior officers of the administration are given the right of entry upon any mines in their districts and may order any matter which they consider dangerous to be rectified, subject to the right of the holder of the mining or prospecting area or his agent to appeal to a higher authority, provided that meanwhile work is stopped in the place affected if the officer deems it advisable. Safety regulations may also be made by the Executive Council.

42. In some countries the Chief Inspector of Mines may order reasonable measures to be taken to prevent soil erosion or to restore the land by filling holes and replacing soil after prospecting and mining operations. There is also a clause providing penalties for "salting" and for making false statements regarding the holding of mining or prospecting title in order to induce persons to invest capital. Provision is sometimes made for the settling of disputes, either by the Inspector of Mines or Warden on the spot, or by arbitration.

43. All Government officers are prohibited from acquiring rights to prospect or mine in the country in which they are employed.

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